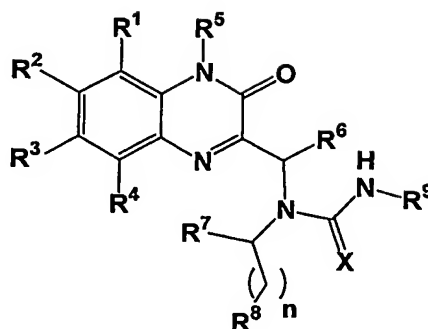


Claims

1. Compounds of the general formula (I)



General Formula (I)

wherein:

X is O, NH, N-CN;

n is the integer 0, 1, 2, 3;

m is the integer 0, 1, 2, 3;

R¹, R², R³, R⁴ independently represent cyano, halogen, hydrogen, hydroxyl, C₁-C₅ alkyl, C₂-C₅ alkenyl, C₁-C₅ alkoxy, C₂-C₅ alkenyloxy, trifluoromethoxy, cycloalkyloxy or R¹ and R² together as well as R² and R³ together or R³ and R⁴ together may form with the phenyl ring to which they are attached, a five, six or seven-membered ring containing one or two oxygen atoms which are separated by at least one carbon atom;

R⁵ represents hydrogen, C₁-C₅ alkyl, C₂-C₅ alkenyl, cycloalkyl, cycloalkyl-C₁-C₅ alkyl, -(CH₂)_m-O-C₁-C₅ alkyl, -(CH₂)_m-COOH, -(CH₂)_m-CO₂-C₁-C₅ alkyl, -(CH₂)_m-CONH₂, -(CH₂)_m-CONH-C₁-C₅ alkyl, -CON-(C₁-C₅ alkyl)₂, -(CH₂)_m-N-C₁-C₅ alkyl;

R⁶ represents hydrogen, C₁-C₅ alkyl, cycloalkyl, cycloalkyl-C₁-C₅ alkyl;

R⁷ represents hydrogen; C₁-C₅ alkyl; C₂-C₅ alkenyl; or mono-, di- or tri-substituted phenyl or phenyl-C₁-C₅ alkyl, whereby the substituents independently are C₁-C₅ alkyl, C₁-C₅ alkoxy, C₂-C₅ alkenyl or halogen; -(CH₂)_m-OH; -(CH₂)_m-O-C₁-C₅ alkyl; -(CH₂)_m-CO₂H; -(CH₂)_m-CO₂-C₁-C₅ alkyl; -(CH₂)_m-

CONH₂; -(CH₂)_m-CONH-C₁-C₅ alkyl; -CON-(C₁-C₅ alkyl)₂;

R⁸ represents unsubstituted phenyl; unsubstituted pyridyl; unsubstituted phenyl-C₁-C₅ alkyl; unsubstituted pyridyl-C₁-C₅ alkyl; or mono-, di- or tri-substituted phenyl, pyridyl, phenyl-C₁-C₅ alkyl or pyridyl-C₁-C₅ alkyl, whereby the substituents independently are C₁-C₅ alkyl, C₁-C₅ alkoxy, trifluoromethyl, trifluoromethoxy, difluoromethoxy or halogen;

R⁹ represents C₁-C₅ alkyl, C₂-C₅ alkenyl, cycloalkyl, cycloalkyl-C₁-C₅ alkyl, unsubstituted phenyl-C₁-C₅ alkyl; or mono-, di- or tri-substituted phenyl or phenyl-C₁-C₅ alkyl, whereby the substituents independently are C₁-C₅ alkyl, C₁-C₅ alkoxy, trifluoromethyl, trifluoromethoxy, difluoromethoxy or halogen;

and optically pure enantiomers, mixtures of enantiomers, racemates, optically pure diastereoisomers, mixtures of diastereoisomers, diastereoisomeric racemates, mixture of diastereoisomeric racemates, or meso forms and pharmaceutically acceptable salts thereof.

2. Compounds of the general formula (I), wherein n is the integer 0, m is the integer 0, R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ and R⁹ have the meaning given in the formula (I) above and X represents oxygen.

3. Compounds of the general formula (I) wherein n is the integer 0, m is the integer 0, R⁵ represents methyl, R⁶ represents phenyl, R¹, R², R³, R⁴, R⁷, R⁸ and R⁹ have the meaning given in the formula (I) above and X represents oxygen.

4. A compound according to any one of claims 1 to 3, selected from the group consisting of:

1-[1-(4-Methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-1-(1-phenyl-ethyl)-3-(2-propyl-phenyl)-urea;

3-Biphenyl-2-yl-1-[1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-1-[1-phenyl-ethyl)urea;

3-(2-Ethoxy-phenyl)-1-[1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-1-(1-phenyl-ethyl)-urea;

3-(2-Ethoxy-phenyl)-1-[(R,S)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-1-((S)-1-phenyl-ethyl)-urea;

3-(2-Ethoxy-phenyl)-1-[(R,S)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-1-((R)-1-phenyl-ethyl)-urea;

3-(2-Ethoxy-phenyl)-1-(2-methoxy-(S)-1-phenyl-ethyl)-1-[(R,S)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-urea;

3-(2-Ethoxy-phenyl)-1-(2-methoxy-(R)-1-phenyl-ethyl)-1-[(R,S)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-urea;

(R)-2-{3-(2-Ethoxy-phenyl)-1-[(R,S)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-ureido}-2-phenyl-acetamide;

(3-{1-[3-(Ethoxy-phenyl)-1-(1-phenyl-ethyl)-ureido]-ethyl}-2-oxo-2*H*-quinoxalin-1-yl)-acetic acid ethyl ester;

2-{3-[3-(2-Ethoxy-phenyl)-1-(1-phenyl-ethyl)-ureidomethyl]-2-oxo-2*H*-quinoxalin-1-yl}-acetamide;

1-Benzyl-3-(2-ethoxy-phenyl)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl-methyl)-urea;

1-Benzyl-3-(2-ethoxy-phenyl)-1-[1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-urea;

3-(2-Ethoxy-phenyl)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl-methyl)-1-(1-phenyl-ethyl)-urea;

(S)-3-(2-Ethoxy-phenyl)-1-(3-oxo-3,4-dihydro-quinoxalin-2-ylmethyl)-1-(1-phenyl-ethyl)-urea;

1-(6-Chloro-pyridin-3-ylmethyl)-3(2-ethoxy-phenyl)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-ylmethyl)-urea;

(S)-3-(2-Ethoxy-phenyl)-1-(2-methoxy-1-phenyl-ethyl)-1-[1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-urea;

(R)-3-(2-Ethoxy-phenyl)-1-(2-methoxy-1-phenyl-ethyl)-1-[1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-urea;

3-(2-Ethoxy-phenyl)-1-(2-hydroxy-(S)-1-phenyl-ethyl)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-ylmethyl)-urea;

3-(2-Ethoxy-phenyl)-1-(2-methoxy-(S)-1-phenyl-ethyl)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-ylmethyl)-urea;

3-(2-Ethoxy-phenyl)-1-(3-hydroxy-(S)-1-phenyl-propyl)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-ylmethyl)-urea;

3-(2-Ethoxy-phenyl)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-ylmethyl)-1-((S)-2-phenyl-propyl)-urea;

3-(2-Ethoxy-phenyl)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-ylmethyl)-1-[-1-(3-trifluoromethyl-phenyl)-ethyl]-urea;

3-(2-Ethoxy-phenyl)-1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-ylmethyl)-1-[1-(4-trifluoromethyl-phenyl)-ethyl]-urea;

N-(2-Ethoxy-phenyl)-*N*'-[1-(4-methyl-3-oxo-3,4-dihydro-quinoxalin-2-yl)-ethyl]-*N*'-1-phenyl-ethyl-cyanoguanidine.

5. Pharmaceutical compositions for the treatment of disorders which are associated with the role of orexin, comprising eating disorders and sleep disorders, cardiovascular disorders, cancer, pain, depression, schizophrenia or neurodegenerative disorders, containing one or more compounds of any one of claims 1 to 4, or a pharmaceutically acceptable salt thereof, and usual carrier materials and adjuvants.

6. The compounds of any one of claims 1 to 4, or a pharmaceutically acceptable salt thereof, for use as medicaments for the treatment of disorders which are associated with a role of orexin, comprising eating disorders, sleep disorders, cardiovascular disorders, cancer, pain, depression, schizophrenia or neurodegenerative disorders.

7. Use of a compound according to any one of claims 1 to 4 in the preparation of a medicament for the treatment of disorders which are associated with a role of orexin, comprising eating disorders, sleep disorders, cardiovascular disorders, cancer, pain, depression, schizophrenia or neurodegenerative disorders.

8. A method of treating or preventing diseases or disorders where an antagonist of a human orexin receptor is required, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound as claimed in any one of claims 1 to 4, or a pharmaceutically acceptable salt thereof.

9. A process for the manufacture of pharmaceutical compositions for the treatment of disorders associated with the role of orexin, eating disorders, sleep disorders, cardiovascular disorders, cancer, pain, depression, schizophrenia or neurodegenerative disorders, containing one or more compounds as claimed in any one of claims 1 to 4, or a pharmaceutically acceptable salt thereof, as active ingredients which process comprises mixing one or more active ingredient or ingredients with pharmaceutically acceptable excipients and adjuvants in a manner known per se.

10. Use of one or more compounds of any one of claims 1 to 4 in combination with other pharmacologically active compounds comprising other orexin receptor antagonists, with lipid lowering agents, anorectic agents, sleep inducing agents, antidepressants or other

drugs beneficial for the prevention or treatment of disorders given in any one of claims 5 to 8.

11. A compound as described as end-product in any one of examples 1 to 20.